

To: Tyler, Kendra[Tyler.Kendra@epa.gov]
From: Magorrian, Matthew
Sent: Mon 8/10/2015 8:41:41 PM
Subject: FW: Materials for Tomorrow's Mt. Polley - type site inventory discussion
[Revised R8 TSF Inventory Summary Table.xlsx](#)
[Mount Polley Sites in R10.docx](#)

I'll print this, now.

Matt

From: Marcy, Ken
Sent: Monday, August 10, 2015 1:10 PM
To: McLerran, Dennis; Albright, Rick; Anderson-Carnahan, Linda; Reichgott, Christine; Dunbar, Bill; Holsman, Marianne; Pirzadeh, Michelle
Cc: Magorrian, Matthew; Grandinetti, Cami
Subject: Materials for Tomorrow's Mt. Polley - type site inventory discussion

Hello everyone,

I'm attaching the R10 mining team write-up with our analysis of the Mt. Polley type sites in the region, and a spreadsheet from Region 8 with their list of sites. We are expecting some input from Region 9 by next week. Here is the description from R8 in support of their spreadsheet for some context (sorry for the length). On a somewhat related note, I've also included a draft HQ response to the Guardian newspaper inquiry regarding an inventory of Gold King Mine type sites (the Aminos River release). See you all tomorrow, Ken

R8 INVENTORY BASIS:

“Our analysis was greatly influenced by the study prepared by Montana Department of Environmental Quality staff (2015) at the behest of the Montana State Legislature that passed legislation to provide guidance to its mine permitting agency for writing new regulations for tailings storage facilities in that state. Montana Senate Bill 409 was passed and signed by the Governor and its preamble or intent can be summarized as follows:

“... provide adequate remedies for the protection of the environmental life support system from degradation [such that] tailings storage facilities are designed, operated, monitored, and closed to meet state-of-practice engineering design standards; use applicable, appropriate, and current practicable technologies given site-specific conditions and concerns; protect human health and the environment, and allow for adaptive management informed by the evolving best engineering practices of qualified, experienced engineers...”

In testimony before the Legislature, MDEQ pointed out that its study was significantly assisted by consultation with the engineers in the Montana Department of Natural Resources and Conservation's (DNRC) dam safety program who reviewed the proposed regulatory language. The study and resulting regulations have benefited greatly from DNRC expertise and willingness to share its experience and knowledge.

Our analysis begins with identifying TSF impoundments that meet some form of “high hazard” classification:

A high hazard dam is any dam that impounds 50 acre-feet of water or more AND could cause loss of human life downstream in the event of impoundment failure. "High-hazard" is not a description of the dam's condition; it refers to the potential for loss of human life downstream if the impoundment were to fail and release its contents. There are over 3500 dams in Montana impounding 50 acre-feet of water or more. One hundred fifty (150) are classified as high-hazard. Montana Department of Environmental Quality (MDEQ) has filtered the list to eight (8) mill tailings storage facilities of most concern.

Colorado and the other R8 States may have their own selection criteria but the R8 mining coordinator could not determine this by the deadline for this task. In general, the criteria used by R8 to select the “facilities of concern” on the attached table were based upon examination of the published reports of ICOLD and UNEP, i.e. effects of overtopping, slope stability failures, effects from seismic events, impoundment foundation defects, seepage damage, other non-slope structural failures, erosion from storm events, and unforeseen effects from mining-induced subsidence.”

DRAFT HQ GUARDIAN RESPONSE ON ANIMAS RIVER:

"EPA routinely monitors hardrock mine sites that are listed on the National Priorities List (NPL). However, EPA does not maintain records of the number of mines or tailings dams in the US. Tailings Dam safety falls under the jurisdiction of State Dam Safety Agencies, and the Federal Land Management Agencies have jurisdiction for monitoring the sites on federal lands. EPA does not have an active mine discovery program, but responds to incidents that are brought to our attention. In August 1994, the EPA report entitled " Technical Report: Design and Evaluation of Tailings Dams" noted that "EPA estimates that there may be several thousand tailings impoundments associated with active non-coal mining, and tens of thousands of inactive or abandoned impoundments."

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